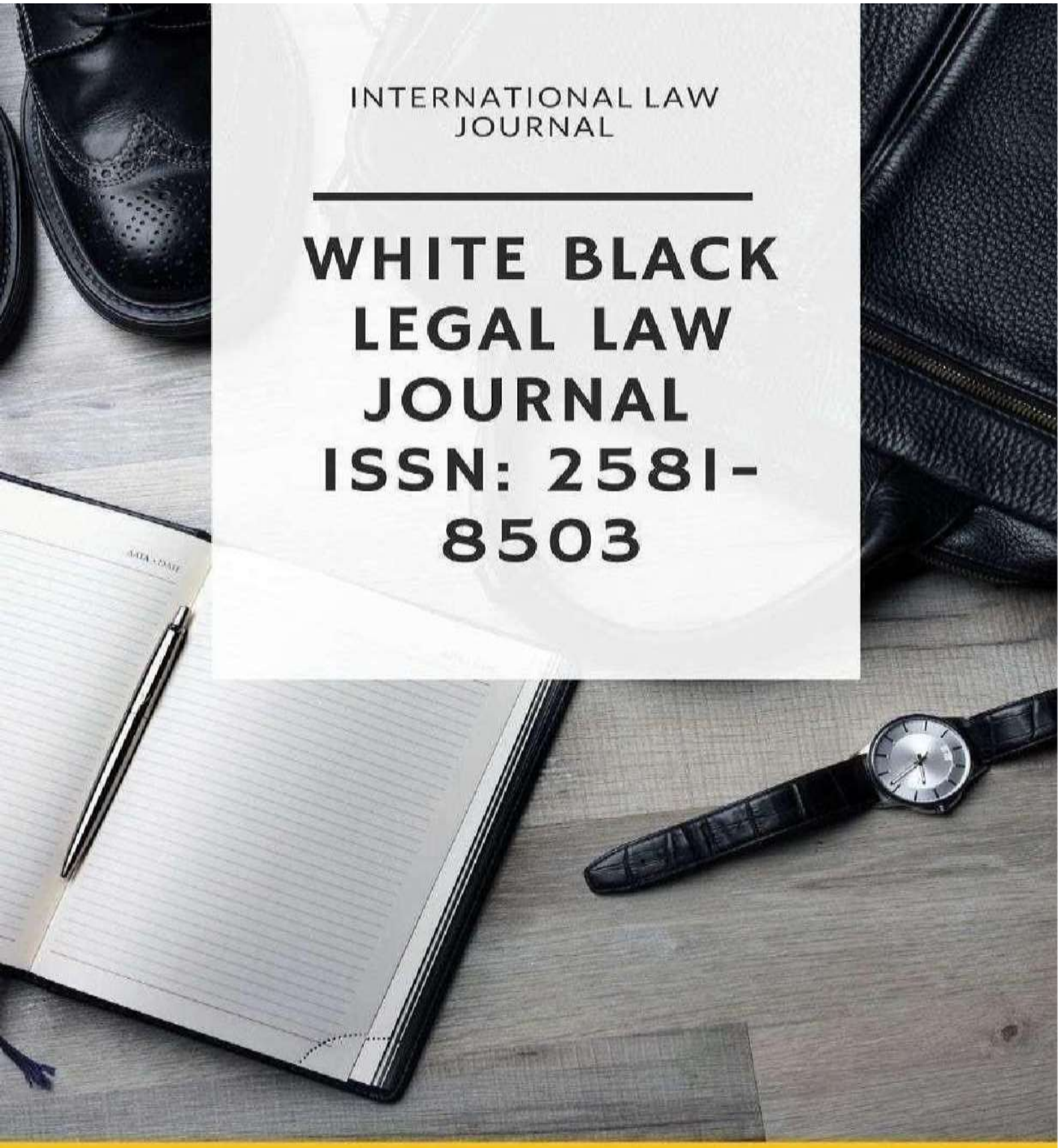

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WHITE BLACK LEGAL is an open access, peer-reviewed and refereed journal provide dedicated to express views on topical legal issues, thereby generating a cross current of ideas on emerging matters. This platform shall also ignite the initiative and desire of young law students to contribute in the field of law. The erudite response of legal luminaries shall be solicited to enable readers to explore challenges that lie before law makers, lawyers and the society at large, in the event of the ever changing social, economic and technological scenario.

With this thought, we hereby present to you

ARTIFICIAL INTELLIGENCE IN COMMERCIAL ARBITRATION: IMPROVING EFFICIENCY AND DEALING WITH ETHICAL DILEMMAS

AUTHORED BY - RIYA RAJ

Abstract

AI is rapidly changing Commercial arbitration by automating its administrative tasks, refining the process of evidence examination, and even the preparation of the arbitral awards themselves. More sophisticated systems can now purport to analyse more complex legal data, detect procedural trends, and forecast the probable outcome. These applications offer increased efficiency, reduced costs, and easier access to arbitration, but they also raise burning ethical and legal issues. There are worries regarding the bias in algorithms, the absence of transparency in decision-making (the black-box problem), and the substitution of human essential judgment. Questions of responsibility and dangers associated with the safety of data and privacy also represent a significant concern once sensitive data are handled by AI-driven technology. In evaluating the effectiveness of AI in arbitration, this paper relies on a multidisciplinary approach, relying on legal scholarship, case study, and technological research. The discussion also examines why it is important to be worthy of the authority of human arbitrators so as to make sure that AI operates as an assistant and not as a Decision maker. Finally, the paper concludes that more recent regulatory rules, transparent algorithmic models, and reconcilability between efficiency and fairness all require updating human-AI methods. Through a critical reassessment of these matters, the research adds to the continuing discussions of how arbitration may adopt technological innovation without compromising its validity or its fundamental ethical principles.

Introduction

Commercial arbitration has come forth as one of the surest ways of solving international commercial disputes. Being a non-judgmental counselling power, the parties present the disputes before neutral arbitrators who give standard opinions that are more likely to be submitted to the traditional courts with a slower pace and less adaptability. The attraction of arbitration is evident in that the process ensures integrity in keeping the information

confidential as well as minimizing rigidity in the procedure, and at the same time, it produces a solution upon the arbitration, which can be enforced internationally. The arbitration has taken a central place in international dispute resolution, especially due to its efficiency, impartiality, and enforceability by international instruments, as one of the studies indicates.[1] Of particular importance was the New York Convention, which has facilitated the international acknowledgement of arbitral awards that have helped cement the role of arbitration in the resolution of complex international disputes. As global trading booms and diversified transactions have proliferated, dependence on arbitration has grown even further, an aspect emphasized by recent scholarship that specifically draws upon the international commercial arbitration setting.[2]

In parallel to that, the legal industry will be experiencing a historic technological transformation as a result of artificial intelligence in its use. The use of AI in arbitration has not merely relied on administrative help but on very advanced functions. Tools such as predictive analytics and natural language processing now seem to be mighty aids to legal research and drafting, including trend analysis of cases.[3] Systems of machine learning are being utilized to forecast cases with stunning precision, and automated document review can cut evidence discovery time in half.[4] The implementation of blockchain platforms is also an option towards secure record-keeping, and enhanced procedural direction and scheduling are increasingly achieved by the use of chatbots and optimization algorithms to provide procedural or operational advice.[5]

The two-fold influence of AI is the motive of modern scholarship. On the one hand, the implementation of this technology guarantees objective merits to efficiency, such as future efficiencies that are provided, such as efficient case administration, faster confirmation of evidence, and less procedural loss.[6] Repetitive work can be automated and workflow optimized using such tools, and reduce the costs and expenses with regard to accessing arbitration.

[1] T.K. Alhasan, *Integrating AI Into Arbitration: Balancing Efficiency With Fairness and Legal Compliance*, 42 Conflict Resol. Q. 523 (2025), https://doi.org/10.1002/crq.21470
[2] Z. Liu, *Research on Legal Issues of Artificial Intelligence Application in International Commercial Arbitration*, 110 Lecture Notes Educ. Psychol. & Pub. Media 11 (2025), https://doi.org/10.54254/2753-7048/2025.BR25434
[3] Aparna Jauhari & Kritika Goswami Ahuja, *AI and the Future of Arbitration: Legal and Ethical Challenges*, 7 Int'l J. Futuristic Multidisciplinary Res., Mar.–Apr. 2025, https://doi.org/10.36948/ijfmr.2025.v07i02.40215
[4] Mohammad Solhchi & Faraz Baghbanno, *Artificial Intelligence and Its Role in the Development of the Future of Arbitration*, 2 Int'l J. L. in Changing World 56 (2023), https://doi.org/10.54934/ijlcw.v2i2.56
[5] Z. Liu, *Research on Legal Issues of Artificial Intelligence Application in International Commercial Arbitration*, 110 Lecture Notes Educ. Psychol. & Pub. Media 11 (2025)
[6] Germán Darío Flórez Acero, *The Use of Artificial Intelligence in Arbitration: Friends with Benefits*, Vniversitas, 2025, https://revistas.javeriana.edu.co/index.php/vnijuri/article/view/40302

Contrastingly, grave moral issues exist. Such problems as algorithmic bias, the lack of transparency in AI decision-making (the so-called black-box problem), and a high rate of posing a risk to data privacy can be highlighted.[7] In addition, existing legal regulations, which are established based on arbitration throughout human judgment, produce unanswered concerns regarding the validity and enforceability of awards produced by AI arbitrators.

It is in this context that the current paper analyses the potential of AI to increase productivity, and at the same time, challenge ethical and legal considerations. Through evaluation of the technological changes and normative issues, the paper contends that AI and its deployment should be kept in a supporting role in a hybrid system, in which human arbiters hold the final decision.

ARTIFICIAL INTELLIGENCE IN COMMERCIAL ARBITRATION

Artificial Intelligence (AI) has begun transforming the tools arbitrators, law firms, and arbitration institutions use. From predictive analytics and natural language processing (NLP) to machine learning, blockchain, and chatbots, various technologies are now being adopted or trailed around the world. This chapter explores these technologies under four headings: Predictive Analytics & NLP; Machine Learning Applications; Blockchain & Document Review; Chatbots & Optimization.

Predictive analytics and Natural language processing

Predictive analytics and NLP are among the foremost AI tools that improve efficiency in arbitration. Legal practitioners report that "principal current uses of AI include factual and legal research, data analytics and document review."[8] In the US and Europe, NLP tools are used to summarise past arbitral awards, extract relevant legal provisions, and assist with drafting by handling boilerplate clauses. In India, similar tools are being proposed to reduce time taken in evidence discovery and to classify large batches of documents.[9] A systematic review notes that "NLP models in legal document analysis employ sophisticated algorithms to extract essential

[7] Z. Liu, *Research on Legal Issues of Artificial Intelligence Application in International Commercial Arbitration*, 110 Lecture Notes Educ. Psychol. & Pub. Media 11 (2025)
[8] Arbitration & AI: Insight, White & Case LLP, *Arbitration and AI* (June 2, 2025), https://www.whitecase.com/insight-our-thinking/2025-international-arbitration-survey-arbitration-and-ai
[9] Arbitration in the Era of AI: What the Future Holds by Justice (Retd.) Hemant Gupta, SCC Online (Jan.8, 2025) https://www.scconline.com/blog/post/2025/01/08/arbitration-in-the-era-of-ai-experts-corner/

data points, sentences, and provisions from extensive text, facilitating lawyers in their tasks."[10]

Machine Learning Applications

Machine learning (ML) extends predictive analytics by giving systems ability to learn from past data patterns. In arbitration, ML is being looked at for "legal judgment prediction" tasks, where models trained on past case facts try to forecast outcomes.[11] But ML also introduces risks: bias detection and mitigation is crucial. For example, Indian scholarship warns that "the 'black box' nature of AI models . . . bias becomes difficult to detect, contest, or correct" when decisions are automated.[12] ML is also applied in precedent identification—finding analogous awards or decisions—and in pattern recognition, especially in recurring commercial disputes (e.g. contract interpretation or trade disputes). Studies show ensemble learning, semantic networks, and ontological analysis boost prediction accuracy in comparative datasets.[13]

Blockchain & Document Review

Blockchain can help with immutable evidence preservation and automated contract enforcement. Countries like India are exploring "smart contracts" integrated into arbitration clauses. One article on Indian law states that "smart contracts and blockchain generate a decentralised tamper-evident ledger shared within a network of entities."[14] For document review, blockchain promises immutable evidence chains, making authenticity verification more reliable. Decentralised arbitration platforms such as Kleros are being studied as models of combining smart contracts with online dispute resolution, and have led to discussions about how traditional and blockchain arbitral orders might coexist in jurisdictions like India.[15]

[10] Md Mostafijur Rahman et al., *Natural Language Processing in Legal Document Analysis Software: A Systematic Review of Current Approaches, Challenges, and Opportunities*, 8 Int'l J. Innovative Research & Sci. Stud. 5026, 5029 (2025), https://doi.org/10.53894/ijirss.v8i3.7702

[11] Junyun Cui, Xiaoyu Shen, Feiping Nie, Zheng Wang, Jinglong Wang, Yulong Chen: A Survey on Legal Judgment Prediction: Datasets, Metrics, Models and Challenges, arXiv, (2022), https://arxiv.org/abs/2204.04859

[12] Setting the Boundaries for the Use of AI in Indian Arbitration", MDPI (2024), https://doi.org/10.3390/engproc2025107039

[13] Aliaksei Vertsel, Mikhail Rumiantsau: Hybrid LLM/Rule-based Approaches to Business Insights Generation from Structured Data, (2024), https://www.bohrium.com/paper-details/hybrid-llm-rule-based-approaches-to-business-insights-generation-from-structured-data/9904991316402503 83-108592

[14] Shilpa Singh & Prajakta Kale, *Smart Contracts and Blockchain: Legal Issues and Implications for Indian Contract Law*, Int'l Review of Law, Computers & Tech., Vol. 36, No. 3 (2022), https://www.tandfonline.com/doi/full/10.1080/13600869.2021.1999312

[15] Integrating Blockchain Technology in Indian Arbitration: Evaluating the Impact and Legal Framework of Strong Smart Contracts, Indian Journal of Law & Legal Research (IJLLR), https://www.ijllr.com/post/the-integrating-blockchain-technology-in-indian-arbitration-evaluating-the-impact-and-legal-framewo

Chatbots & Optimization

Another set of tools are those that assist communication, procedural tasks, and logistical optimization. AI-powered chatbots are being used to handle client queries or to guide parties on procedural workflows. Optimization algorithms help arbitration centres schedule hearings, allocate resources, and provide updates on case status. While direct academic papers on chatbots in commercial arbitration are less numerous, legal news sources and practitioner surveys indicate increasing interest: respondents expect growth in "AI assistance in drafting and evaluation of legal arguments," though noting concerns when judgment and discretion are involved.[16]

This overview of AI technologies reflects a spectrum: on the one hand, some only facilitate the role of administrators, on the other hand, those that approach decision support and even quasi-adjudicative duties. Both technologies promise efficiency benefits - and both attract scrutiny in terms of risks: bias, opacity, enforceability, and the need for human intervention.

EFFICIENCY ENHANCEMENT THROUGH AI INTEGRATION: INDIA, US, AND EU PERSPECTIVES

Artificial intelligence (AI) is now an undeniable part of arbitral practice, and its role in enhancing efficiency has been widely debated across jurisdictions. While the underlying technologies: predictive analytics, natural language processing (NLP), and machine learning are similar, their impact on arbitration processes in India, the United States (US), and the European Union (EU) reflects distinct institutional frameworks and regulatory environments[17].

Streamlined Case Management and Evidence Discovery

In the US, courts have already paved the way for technology-assisted review in discovery-heavy disputes. The landmark *Da Silva Moore v. Publicis Groupe* decision approved predictive coding, holding that such methods were both reliable and cost-efficient for managing voluminous data sets.[18] This precedent significantly influenced arbitral practice, where parties increasingly employ AI-powered e-discovery tools to classify documents and accelerate

[16] Arbitration & AI: Insight, White & Case LLP, *Arbitration and AI* (June 2, 2025), https://www.whitecase.com/insight-our-thinking/2025-international-arbitration-survey-arbitration-and-ai

[17] White & Case LLP & Queen Mary Univ. of London, *2025 International Arbitration Survey: The Path Forward* 28–32 (2025), https://www.qmul.ac.uk/arbitration/media/arbitration/docs/White-Case-QMUL-2025-International-Arbitration-Survey-report.pdf

[18] Monique Da Silva Moore v. Publicis Groupe & MSL Grp., 287 F.R.D. 182 (S.D.N.Y. 2012)

disclosure. Similarly, in the UK and EU, *Pyrrho Investments Ltd. v. MWB Property Ltd.* endorsed predictive coding, providing arbitration practitioners in Europe with judicial reassurance for AI-based review systems.[19] By contrast, in India, while judicial recognition of predictive coding is still absent, arbitral institutions have started experimenting with AI-driven platforms for document management, recognising the need to reduce delays in commercial disputes that typically suffer from evidence backlogs.[20]

Cost Reduction and Accessibility

AI's efficiency translates directly into reduced arbitration costs. In the US, where high-value disputes often involve extensive discovery, automating document review can save millions in legal fees.[21] EU-based institutions, particularly the ICC in Paris, have integrated AI tools for case tracking and administrative scheduling, thereby cutting overheads for parties and arbitrators alike.[22] In India, the 2019 amendments to the Arbitration and Conciliation Act emphasised time-bound resolution of disputes, and AI tools have been framed as a natural complement to this statutory mandate by enabling arbitrators to meet strict deadlines without compromising procedural fairness.[23] Scholars have observed that "AI can meaningfully reduce the burden on parties by expediting routine tasks, thereby increasing access to arbitration for small and medium enterprises."[24]

Drafting of Arbitral Awards and Predictive Tools

One of AI's most promising yet controversial applications is in arbitral award drafting. NLP systems are already capable of formatting, cross-referencing, and generating first drafts of procedural sections of awards. In the US, experimental tools have been developed to predict case outcomes with high accuracy in narrow domains such as securities arbitration.[25] The EU has seen pilot projects where tribunals receive AI-generated risk assessments to test

[19] Pyrrho Invs. Ltd. v. MWB Prop. Ltd., [2016] EWHC 256 (Ch) (Eng.), https://www.bailii.org/ew/cases/EWHC/Ch/2016/256.html
[20] Bhavana Chandak Dhoundiyal & Shambhavi Upadhyay, *Embracing AI in Arbitration: Enhancing Efficiency Without Compromising Justice*, SCC Online (Sept. 5, 2025), https://www.scconline.com/blog/post/2025/09/05/embracing-ai-in-arbitration-enhancing-efficiency-without-compromising-justice/
[21] White & Case LLP & Queen Mary Univ. of London, supra note 17, at 29–31
[22] Int'l Chamber of Commerce, *Report on Leveraging Technology for Arbitration Efficiency* 14–17 (2023), https://iccwbo.org/wp-content/uploads/sites/3/2022/02/icc-arbitration-and-adr-commission-report-on-leveraging-technology-for-fair-effective-and-efficient-international-arbitration-proceedings.pdf
[23] S. 23 of Arbitration and Conciliation (Amendment) Act, No. 33 of 2019, Acts of Parliament, 2019 (India)
[24] T.K. Alhasan, *Integrating AI Into Arbitration: Balancing Efficiency With Fairness and Legal Compliance*, 42 Conflict Resol. Q. 523, 528 (2025)
[25] Justice (Retd.) Hemant Gupta: *The Era of AI: What the Future Holds*, SCC Online (Jan. 8, 2025),

consistency with prior awards.[26] India remains cautious, with experts warning against the wholesale adoption of AI in substantive decision-making; instead, AI is confined to administrative drafting support.[27] This distinction reflects broader concerns about enforceability under the New York Convention, which requires awards to be the product of human adjudication.

Comparative Evaluation with Traditional Models

Comparative evaluation shows that the US has been most proactive in integrating AI into arbitration efficiency models, driven by litigation precedents and advanced institutional capacity. The EU has followed suit, with the European Commission actively funding research into AI's role in justice delivery.[28] India, while slower, is positioning itself for gradual adoption, guided by a policy framework that prioritises cost reduction and efficiency while remaining wary of ethical and enforcement challenges. As one commentary notes, "embracing AI in arbitration is inevitable, but jurisdictions differ in how they balance efficiency gains with fairness and legitimacy."[29]

In the end, efficiency enhancements through AI are undeniable across India, the US, and the EU. However, the trajectory of adoption illustrates different balances: the US emphasises litigation-derived efficiency, the EU institutional experimentation, and India's statutory deadlines and accessibility. Together, these jurisdictions show that AI is not a one-size-fits-all solution but a flexible tool shaped by domestic legal cultures.

ETHICAL DILEMMAS, FAIRNESS CHALLENGES, AND LEGAL ENFORCEABILITY IN AI-DRIVEN ARBITRATION

Artificial intelligence (AI) promises real efficiency gains in commercial arbitration, but it simultaneously raises ethical risks and difficult questions about the legal status of AI-assisted awards.[30] The institutional response so far reflects a pragmatic tension: institutions encourage sensible AI use while warning that unchecked automation can threaten integrity and

[26] Id.
[27] Dhoundiyal & Upadhyay, supra note 20
[28] European Commission, *White Paper on Artificial Intelligence: A European Approach to Excellence and Trust* 7–9 (2020)
[29] Id.; Dhoundiyal & Upadhyay, supra note 20
[30] Chartered Institute of Arbitrators, *Guideline on the Use of AI in Arbitratio*, para 1–2 (Mar. 2025), https://www.ciarb.org/media/m5dl3pha/ciarb-guideline-on-the-use-of-ai-in-arbitration-2025- final march-2025.pdf

enforceability.[31]

A primary ethical worry is algorithmic bias: Machine models trained on historical or skewed data can reproduce and amplify discriminatory patterns.[32] Arbitration is especially vulnerable because awards and party materials are often unpublished or available only in limited datasets, which makes biased training data a real possibility.[33] As commentators warn, "data bias occurs when the AI model is trained on a biased data set and then replicates that bias in its conclusions."[34] Because biased outputs can distort fact-finding or risk assessment, parties may be denied the level of procedural fairness that arbitration guarantees.[35]

Closely linked is the transparency problem: The so-called "black-box" dilemma, where complex models deliver outputs without a comprehensible explanation of how they were reached.[36] Explainability matters in arbitration because parties have the right to reasoned decisions and to test the basis of the tribunal's reasoning.[37] Practice guidance, therefore, stresses that arbitrators and counsel "must independently and critically evaluate AI-derived information" and guard against the delegation of core adjudicative tasks to opaque systems.[38] Explainable AI (XAI) techniques and audit trails are promoted as partial remedies, but technical fixes alone do not resolve legal questions about reasoned decision-making.[39]

Data privacy and cybersecurity are another category of fairness risk: arbitration files often contain highly sensitive commercial data, and sending materials to third-party AI platforms

[31] White & Case LLP & Queen Mary Univ. of London, *2025 International Arbitration Survey: The Path Forward* 25–32 (2025)
[32] Quinn Emanuel Urquhart & Sullivan, *When Machines Discriminate: The Rise of AI Bias Lawsuits* (Aug. 18, 2025), https://www.quinnemanuel.com/the-firm/publications/when-machines-discriminate-the-rise-of-ai-bias-lawsuits/
[33] supra note 31, at 71–73
[34] supra note 32
[35] Global Arbitration Review, *Artificial intelligence in arbitration: evidentiary issues and prospects* (June 2025), https://globalarbitrationreview.com/guide/the-guide-evidence-in-international-arbitration/3rd-edition/article/artificial-intelligence-in-arbitration-evidentiary-issues-and-prospects
[36] Reed Smith, *AI in IA: a clause for concern?* (2025), https://www.reedsmith.com/-/media/files/perspectives/2025/international_arbitration_focus_newsletter__ai_in_ia.pdf
[37] JAMS, *Putting the Artificial Intelligence in Alternative Dispute Resolution* 3–4 (2023), https://www.jamsadr.com/files/uploads/documents/articles/abbott-ryan-amicuscuriae-putting-the-artificial-07-2023.pdf
[38] Silicon Valley Arbitration & Mediation Ctr., *Guidelines on the Use of Artificial Intelligence in Arbitration* 2–3 (Apr. 30, 2024), https://svamc.org/wp-content/uploads/SVAMC-AI-Guidelines-First-Edition.pdf
[39] Frontiers in Human Dynamics, *Transparency and accountability in AI systems* (2024) (discussing XAI and audit trails as partial remedies), https://www.frontiersin.org/journals/human-dynamics/articles/10.3389/fhumd.2024.1421273/full

raises confidentiality and breach concerns. Institutional guidelines recommend redaction, secure local deployments, and clear data-retention policies to reduce exposure.

The EU's regulatory architecture: GDPR and the White Paper / AI Act initiatives add layered privacy and transparency obligations that arbitration users must factor into procedural orders and vendor contracts.[40]

Those ethical risks have direct consequences for enforceability under existing treaties and national laws. The New York Convention remains the primary instrument for cross-border recognition; however, recognition and enforcement can be refused if the award offends public policy or lacks procedural guarantees.[41] Scholars and practitioners, therefore, ask whether an award substantially produced by an opaque AI tool might be vulnerable to challenge under public-policy or due-process grounds.[42] Kluwer and other commentators have noted that article V(2)(b) of the New York Convention specifically allows refusal where an award is contrary to the public policy of the enforcing state.

Arbitration rules themselves are largely silent on AI, creating a regulatory gap that motivates institutional responses. Leading bodies have stepped in: the SVAMC Guidelines and the Chartered Institute of Arbitrators' (CIArb) AI Guideline both provide templates, disclosure frameworks, and procedural orders intended to preserve tribunal control and award enforceability. Those instruments emphasise non-delegation of decision-making, case-by-case disclosure about AI use, and the need for human oversight and auditability.[43]

Jurisdictional differences matter. In the US, courts and commentators focus on bias liability and evidentiary reliability in discovery contexts and on vendor accountability; in the EU, overlapping obligations under the GDPR and the proposed AI Act heighten transparency and

[40] European Commission, *White Paper on Artificial Intelligence: A European approach to excellence and trust* 2020; see also proposed EU AI Act (2021–2024 debates)
[41] Could an Arbitral Award Rendered by AI Systems be Recognized or Enforced?, Kluwer Arb. Blog (2024), https://legalblogs.wolterskluwer.com/arbitration-blog/could-an-arbitral-award-rendered-by-ai-systems-be-recognized-or-enforced-analysis-from-the-perspective-of-public-policy/
[42] See, e.g., Conflict of Laws blog, *AI in Arbitration: Will the EU AI Act Stand in the Way of Enforcement?* (2025) (noting Article 1721(1)(d) and reasoning requirements in EU law)
[43] CIArb Guideline Para 11–12 (model procedural orders and emphasis on enforceability), SVAMC Guideline 6 (non-delegation)

rights-of-review concerns;[44] in India, scholarship and practice recommend express statutory or rule-level safeguards to preserve enforceability and party autonomy;[45] and in China the conversation is nascent but growing as technology hubs build private dispute platforms.[46]

In sum, reconciling efficiency with legitimacy requires three linked steps: (1) adopt explainability and data-governance measures; (2) embed AI usage rules into procedural orders and institutional rules; and (3) preserve human adjudicative control so that awards remain reasoned, reviewable, and enforceable.

HUMAN OVERSIGHT AND HYBRID MODELS

Ensuring that human arbitrators retain ultimate authority over decisions is the single most important safeguard when AI is used in arbitration. Institutions have therefore adopted a strict non-delegation principle: "An arbitrator shall not delegate any part of their personal mandate to any AI tool."[47] That principle is reinforced by procedural guidance requiring tribunals to remain responsible for independently analysing the facts, law, and evidence, and to verify any AI outputs before relying on them.

A hybrid model where AI performs information-heavy tasks while humans make the normative calls and capture the practical benefits of technology without surrendering judicial responsibility.[48] Practically, AI can help with legal research, evidence synthesis, document review, and first drafts of procedural text, while the arbitrator works with those outputs, tests them, and frames the legal reasoning. This "human-in-the-loop" approach keeps accountability clear: the tribunal remains the author of the award and the final decision-maker even when AI materially assists in preparation.[49]

Training and capacity-building are central to making hybrid models work in practice. Empirical surveys of practitioners show a widespread desire for "training on the use of AI" and predict the creation of new roles such as AI-liaison or technical counsel to support tribunals and

[44] European Commission, *White Paper on AI* (2020) and subsequent AI Act proposals, which increase transparency and procedural obligations for high-risk uses
[45] supra note 12
[46] Ranking mundial de arbitraje: Londres reina, Pekín despunta y Madrid se desinfla, https://cincodias.elpais.com/legal/2025-06-18/ranking-mundial-de-arbitraje-londres-reina-pekin-despunta-y-madrid-se-desinfla.html
[47] supra note 38, at para 6
[48] supra note 32
[49] supra note 38, at guideline 6

counsel. Guidance instruments, therefore, encourage tribunals to appoint AI experts where necessary and emphasise a duty of competence for parties and representatives using AI tools.[50] On the operational side, three practical measures make hybrid models durable. First, procedural orders (or model clauses) should require disclosure of any "high-risk" AI uses, including tool name, version, relevant prompts, and the extent of automated drafting.[51] Second, parties should build audit trails and vendor contracts that protect confidentiality and permit source verification.[52] Third, arbitrators should be empowered to test AI outputs (for example, by ordering reproduction of prompts or by appointing independent technical advisors).[53]

Jurisdictional frameworks shape how strongly oversight is enforced. The EU's regulatory architecture explicitly mandates human oversight for high-risk AI systems, adding statutory duties for deployers and deployer-level accountability. In the US, institutions and commentators emphasise evidentiary reliability, professional responsibility and vendor accountability when AI informs filings or tribunal work. Indian commentators and practitioners likewise urge procedural transparency and even express a view that awards should disclose the use and extent of AI assistance to avoid later challenges.

All of these elements point to a single pragmatic thesis: hybrid arbitration models that combine clear human control, focused training, procedural disclosure, and technical safeguards can harness AI's efficiency gains while preserving the legitimacy, reviewability, and enforceability of arbitral awards.

CONCLUSION AND FUTURE DIRECTIONS

The discussion on artificial intelligence in commercial arbitration makes it clear that the technology offers real opportunities but also poses serious challenges. On the efficiency side, AI is already transforming how arbitration is conducted. Tasks like sorting evidence, managing procedural timelines, and even drafting parts of awards can be done faster and with greater accuracy. This has the potential to lower costs and make arbitration more accessible, particularly for smaller disputes or parties from developing jurisdictions. For a system often criticized for delay and expense, these developments cannot be ignored.

[50] supra note 12
[51] supra note 38, guideline 3
[52] Chartered Institute of Arbitrators, *Guideline on the Use of AI in Arbitration*, App'x B (Procedural Order on the Use of AI) (Mar. 2025).
[53] CIArb Guideline, Para 8 (tribunal's right to investigate and appoint AI experts).

Yet the efficiency gains must be weighed against significant ethical and legal concerns. The risk of algorithmic bias, the opacity of machine-generated decisions, and threats to confidentiality all raise questions about fairness and legitimacy. Arbitration ultimately derives its authority from party consent and the rule of law. If parties lose confidence that decisions are impartial and transparent, then even the fastest and cheapest process will fail to deliver justice. The balance between innovation and legitimacy is therefore central to the future of AI in arbitration.

At present, there are clear limitations. Much of the debate is still theoretical, with very little empirical evidence on how AI actually performs in live arbitral proceedings. Jurisdictions are also taking different approaches: the European Union is pushing forward with comprehensive regulation through its AI Act, while the United States has left more space for professional self-regulation. India and other emerging jurisdictions are experimenting but lack a clear legal framework. These differences create uncertainty, particularly in cross-border enforcement of AI-assisted awards under instruments like the New York Convention.

Looking forward, three steps appear necessary. First, regulatory clarity is essential. Arbitration institutions and legislators should set out guidelines on the permissible role of AI, disclosure requirements, and human oversight. Second, stronger ethical frameworks must be put in place, addressing transparency, accountability, and data protection. Third, more empirical research is needed to test whether AI tools truly deliver on their promises of efficiency and cost reduction. The most realistic future is not one where arbitrators are replaced, but one where AI works alongside them. Hybrid models, where machines handle data-heavy tasks and human arbitrators retain ultimate authority, are more likely to preserve both efficiency and fairness. If guided carefully, AI can strengthen arbitration rather than undermine it. The challenge lies in ensuring that technological progress remains anchored in human judgment and the principles of justice